

THE WHITE WHITE LEAD



THE LEAD
WITH THE SPREAD

PAINTERS' COLOR MIXING GUIDE

CARTER WHITE LEAD COMPANY

(4TH EDITION)

PROPERTY OF

FRANK KULLICK

1804 N. TALMAN

CHICAGO



No. 1—LIGHT VENETIAN RED
PERMANENT

100 lbs. Carter Pure White Lead
 $\frac{1}{2}$ to 1 lb. Venetian Red



No. 1-B—DARK VENETIAN RED
PERMANENT

100 lbs. Venetian Red
(No white lead required)



No. 2—LIGHT SLATE
PERMANENT

100 lbs. Carter Pure White Lead
 $\frac{1}{4}$ lb. lamp black—add gradually



No. 2-B—DARK SLATE
PERMANENT

100 lbs. Carter Pure White Lead
2 lbs. lamp black



No. 3—LIGHT BRONZE GRAY
PERMANENT

100 lbs. Carter Pure White Lead
4 to 6 lbs. French ochre
 $\frac{1}{4}$ lb. lamp black



No. 3-B—DARK BRONZE GRAY
PERMANENT

100 lbs. Carter Pure White Lead
20 lbs. French ochre
4 lbs. lamp black—add gradually



No. 4—LIGHT NEUTRAL BROWN
PERMANENT

100 lbs. Carter Pure White Lead
1 to 3 lbs. raw umber



No. 4-B—DARK NEUTRAL BROWN
PERMANENT

100 lbs. Carter Pure White Lead
20 to 30 lbs. raw umber



No. 5—LIGHT GOLDEN OCHRE
PERMANENT

100 lbs. Carter Pure White Lead
4 to 6 lbs. French ochre
 $\frac{1}{4}$ to $\frac{1}{2}$ lb. burnt sienna



No. 5-B—DARK GOLDEN OCHRE
PERMANENT

100 lbs. Carter Pure White Lead
20 to 25 lbs. French ochre
3 to 4 lbs. burnt sienna



No. 6—STEEL GRAY
PERMANENT

100 lbs. Carter Pure White Lead
4 to 5 oz. lamp black
A touch of Prussian blue



No. 7—FRENCH GRAY
PERMANENT

100 lbs. Carter Pure White Lead
4 lbs. French ochre
 $\frac{1}{4}$ lb. lamp black



No. 8—DARK GRAY
PERMANENT

100 lbs. Carter Pure White Lead
30 lbs. French ochre
6 lbs. lamp black—add gradually



No. 9—WARM GRAY
PERMANENT

100 lbs. Carter Pure White Lead
4 to 6 lbs. French ochre
2 oz. lamp black—add gradually
2 oz. Venetian red



No. 10—WARM DRAB
PERMANENT

100 lbs. Carter Pure White Lead
2 to 3 lbs. French ochre
 $1\frac{1}{2}$ lbs. raw umber



No. 11—MEDIUM DRAB
PERMANENT

100 lbs. Carter Pure White Lead
6 lbs. raw umber
4 lbs. French ochre



No. 12—BEDFORD STONE
PERMANENT

100 lbs. Carter Pure White Lead
3 lbs. raw sienna
Little lamp black—add gradually



No. 13—IVORY WHITE
FAIRLY PERMANENT

100 lbs. Carter Pure White Lead
 $\frac{1}{4}$ lb. medium chrome yellow



No. 14—CREAM
PERMANENT

100 lbs. Carter Pure White Lead
2 to 3 lbs. French ochre



No. 15—BUFF
FAIRLY PERMANENT

100 lbs. Carter Pure White Lead
15 to 20 lbs. French ochre
2 to 3 lbs. medium chrome
yellow—add gradually



No. 16—COLONIAL YELLOW
FAIRLY PERMANENT

100 lbs. Carter Pure White Lead
1 to 2 lbs. medium chrome
yellow—add gradually
1 lb. raw sienna



No. 17—LIGHT TERRA COTTA
PERMANENT

100 lbs. Carter Pure White Lead
40 to 50 lbs. French ochre
4 to 5 lbs. Venetian red—add
gradually



No. 18—BLIND GREEN
FAIRLY PERMANENT

100 lbs. medium chrome green
(No white lead required)



No. 19—MEDIUM OLIVE
FAIRLY PERMANENT

100 lbs. Carter Pure White Lead
25 lbs. French ochre
6 to 7 lbs. medium chrome green
Little lamp black



No. 20—APPLE GREEN
FAIRLY PERMANENT

100 lbs. Carter Pure White Lead
4 to 6 lbs. medium chrome green
5 to 7 lbs. medium chrome yellow



No. 21—MOSS GREEN
FAIRLY PERMANENT

100 lbs. medium chrome green
(No white lead required)
40 lbs. raw umber
20 lbs. medium chrome yellow



No. 22—SAGE GREEN
FAIRLY PERMANENT

100 lbs. Carter Pure White Lead
1 to 2 lbs. medium chrome green
1 lb. raw umber



No. 23—CEILING BLUE
NOT PERMANENT IN SUNLIGHT

100 lbs. Carter Pure White Lead
Add cautiously a very little
Prussian blue



No. 24—TAN
PERMANENT

100 lbs. Carter Pure White Lead
30 to 35 lbs. raw sienna



No. 25—CHOCOLATE BROWN
PERMANENT

100 lbs. Carter Pure White Lead
21 to 22 lbs. burnt umber
12 to 13 lbs. burnt sienna
12 to 13 lbs. raw sienna



No. 26—LIGHT BROWN
PERMANENT

100 lbs. Carter Pure White Lead
3 lbs. burnt umber
2 lbs. raw sienna



No. 27—RICH MAROON
PERMANENT

100 lbs. Tuscan red
(No white lead required)
Little lamp black

TINTING COLORS

Always use colors ground in oil. They reduce the labor of mixing, are more likely to run uniform in shade and leave no lumps to streak under the brush.

In choosing colors for exterior painting, care should be used to select tinting colors that are permanent in sunlight. The following colors ground in oil may be placed in this class: Lamp black, French ochre, Venetian red, raw umber, burnt umber, raw sienna, burnt sienna and Tuscan red.

The fairly permanent colors are Prussian blue, medium chrome yellow and medium chrome green.

Prussian blue will fade in bright sun light, but for shaded places such as porch ceilings it is entirely satisfactory.

The chrome yellows cannot be dispensed with for there is nothing else more permanent which will produce such bright, lively tints. Raw sienna often is better for some tints like ivory, cream and buff.

The chrome greens cannot be spared, although they are likely to fade somewhat on exposure.

Soft, conservative tints and shades usually do not fade as soon as bright strong colors.

OUTSIDE WOODWORK PENETRATING PRIMING COAT

100 lbs. Carter Pure White Lead.
4 gal. pure raw linseed oil.
2 gal. pure turpentine.
1 qt. japan drier.
Makes $9\frac{1}{8}$ gal. paint.

HARD BODY COAT

100 lbs. Carter Pure White Lead.
2 gal. pure raw linseed oil.
2 gal. pure turpentine.
1 pt. japan drier.
Makes 7 gal. paint.

ELASTIC FINISHING COAT— HIGH GLOSS

100 lbs. Carter Pure White Lead.
4 gal. pure raw linseed oil.
1 pt. pure turpentine.
1 qt. japan drier.
Makes $7\frac{1}{4}$ gal. paint.

The quantities of thinners specified are for white and light tinted paints. For darker shades requiring considerable quantities of tinting colors, more thinners must be used to make the paint the right working consistency.

Carter White Lead thinned with 5 gal. of oil to 100 lbs. of white lead makes paint that works well, covers satisfactorily and under favorable conditions gives good service, but a larger proportion of pigment will better protect the oil from the elements and give the paint longer life. More than 5 gal. of oil to 100 lbs. of white lead should never be used for the finishing coat in white or light tints.

For ordinary repainting, the "Body" and "Finishing" coats are sufficient.

For all new work and for repainting old lumber that is weather beaten and practically bare, all three coats are required.

INSIDE WOODWORK

In dark colors, or in places where the yellow tint of linseed oil is not objectionable, mix all coats the same as for "Outside Woodwork." For other than high gloss finish, use priming and body coats as specified and finishing coat as follows:

FINISHING COAT—FLAT

100 lbs. Carter Pure White Lead.
2½ gal. turpentine.
¼ pt. japan drier.
Makes 5½ gal. of paint.

FINISHING COAT—EGGSHELL GLOSS

100 lbs. Carter Pure White Lead.
½ gal. pure raw linseed oil.
2 gal. turpentine.
½ pt. japan drier.
Makes 5½ gal. of paint.

ENAMEL FINISH—FLAT OR GLOSS

While one coat of high grade enamel over two coats of lead and oil is frequently satisfactory, the finish will be considerably improved if two enamel coats are used especially if the enamel is tinted.

For the third coat, thin white lead with turpentine to brushing consistency and add an equal quantity of enamel. For the final finishing coat flow on the enamel just as it comes from the can.

BRICK, STUCCO AND CONCRETE

PRIMING COAT—TINT TO SUIT

100 lbs. Carter Pure White Lead.
7 gal. pure boiled linseed oil.
(or 7 gal. pure raw linseed oil,
1 qt. japan drier).
1 gal. turpentine.
Makes 11 gal. of paint.
(4 to 5 gal. oil are sufficient for priming coat on pressed or hard brick).

SECOND COAT—NEW WORK FIRST COAT—OLD WORK

100 lbs. Carter Pure White Lead.
4 gal. pure linseed oil (1/3 boiled,
2/3 raw).
(Or 4 gal. pure raw linseed oil and
1 pt. japan drier).
Makes 6¾ gal. of paint.

FINISHING COAT

100 lbs. Carter Pure White Lead.
4 gal. pure linseed oil (1/3 boiled,
2/3 raw).
(Or 3½ gal. pure raw linseed oil and
1 pt. japan drier).
1 pt. pure turpentine.
Makes 7 gal. of paint.

Stucco or concrete, less than one year old, should first be coated with a solution of 20 parts sulphate of zinc to 80 parts water to neutralize the causticity of the lime.

PLASTER WALLS

PRIMING COAT

100 lbs. Carter Pure White Lead.
7 gal. pure boiled linseed oil.
 $\frac{1}{2}$ to 1 gal. pure turpentine.
Makes $10\frac{1}{2}$ to 11 gal. paint.

If the priming coat, when dry, shows a uniform gloss, no suction is present. If flat spots appear or fine cracks show through the paint, apply a coat of weak glue size or a good interior varnish thinned with turpentine. (Do not use gloss oil or hard oil).

SECOND COAT

100 lbs. Carter Pure White Lead.
 $1\frac{1}{2}$ gal. pure raw linseed oil.
 $1\frac{1}{2}$ gal. turpentine.
1 pt. japan drier.
Makes 6 gal. paint.

FINISHING COAT—DEAD FLAT

100 lbs. Carter Pure White Lead.
3 gal. pure turpentine.
 $\frac{1}{4}$ pt. japan drier.
Makes 6 gal. paint.

FINISHING COAT—EGGSHELL GLOSS

100 lbs. Carter Pure White Lead.
2 gal. turpentine.
 $\frac{1}{2}$ gal. pure raw linseed oil.
 $\frac{1}{4}$ pt. japan drier.
Makes $5\frac{1}{2}$ gal. paint.

FINISHING COAT—FULL GLOSS

100 lbs. Carter Pure White Lead.
4 to $4\frac{1}{2}$ gal. pure raw linseed oil.
1 pt. pure turpentine.
1 qt. japan drier.
Makes $7\frac{1}{4}$ to $7\frac{3}{4}$ gal. paint.

EXTERIOR METAL WORK

FIRST COAT

50 lbs. pure red lead paste.
1 gal. pure raw linseed oil.
 $\frac{1}{2}$ gal. pure boiled linseed oil.
Makes 3 gal. of paint.

SECOND AND THIRD COATS

Same as above, but with addition of tinting color if bright orange is not wanted.

If necessary to use dry red lead, use 30 to 33 lbs. to the gallon of oil.

Iron work must be cleaned of all scale, dirt and grease. Rosin should be carefully scraped from tin plate, the seams wiped with kerosene and turpentine and greasiness removed by washing with a strong solution of soda after which it must dry thoroughly.

Old galvanized iron should be washed with sand soap and water or scoured with a wire brush. New galvanized iron, less than six months in the weather, should be washed with a 5% solution of acetic acid, and after standing 24 hours, the surface should be thoroughly washed with clear water and allowed to dry before painting.

White lead paint of any desired color may be applied in the usual way on any metal work over a red lead priming coat.

TO BREAK UP WHITE LEAD

QUICKLY AND SMOOTHLY, USE THIS METHOD:

Start by adding a very small quantity of oil—not more than 1 quart of oil to 100 pounds of lead. With a good, strong, smooth paddle, work the oil completely into the lead; then add another quart of oil, and when this is thoroughly worked in, you may add additional oil, 1 quart at a time, working it thoroughly into the lead until you have worked in $1\frac{1}{2}$ gallons of oil to the 100 pounds of lead. In breaking smaller quantities of lead, reduce the quantity of oil proportionately.

The mixture will now readily thin down with more oil into a fairly smooth paint, entirely free from lumps. The small amount of skin present should then be removed by straining through wire screen or cheese cloth.

The working qualities of the paint are very much improved by straining and by letting it stand at least one day before using it.

Because of its fineness, Carter White Lead feels stiffer under the paddle than most other leads. Best results always follow using the specified quantity of thinners and testing for body under the brush. Do not "flood" the lead.

TINTING WHITE LEAD

Colors in oil should be partly thinned with turpentine and added to the paint before the paint receives its final thinning; or the colors in oil may be thinned to fluid consistency and added after thinning the paint but before straining.

It is impossible to give a formula by which any color may be matched exactly. The painter must depend upon his eye. Tinting colors should be added cautiously and gradually and never at first all that is called for by the formula. The color always looks darker in the pot than when spread on a board; it also changes somewhat in drying, for which due allowance must be made.

Tinting colors vary in strength with different makes. There is no uniform standard, either of strength or of the color sold under a common name.

The directions for mixing colors given in this guide were all worked out with high grade tinting colors, ground in oil. If it is necessary to use colors with weak tinting strength, an additional quantity must be allowed for.